# Vertical Caddy-veyor SYSTEMS

up, down & reversible
complete automation

THE NEW AND SUPERIOR CONCEPT IN . . .

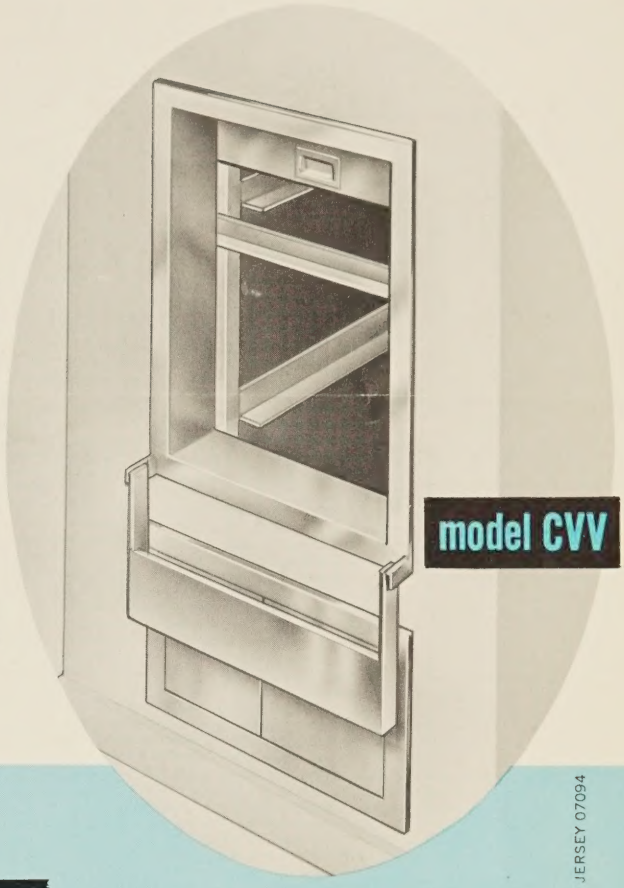
- FOOD TRAY SERVICE
- RETURN OF SOILED DISH TRAYS
- TRANSFER OF SUPPLIES — EITHER UP OR DOWN

Conveyors are a sound investment, providing speedy, automatic transfer and lower day to day operational costs. Fewer personnel required and less auxiliary service equipment. Fast, smooth service to each floor and quick return to central area . . . the overall "service period" sharply reduced.

**SINGLE DIRECTION SYSTEMS • REVERSIBLE SYSTEMS • FULLY AUTOMATIC LOADING AND UNLOADING • OR MANUAL CONTROLS**

**TECHNICAL ASSISTANCE**

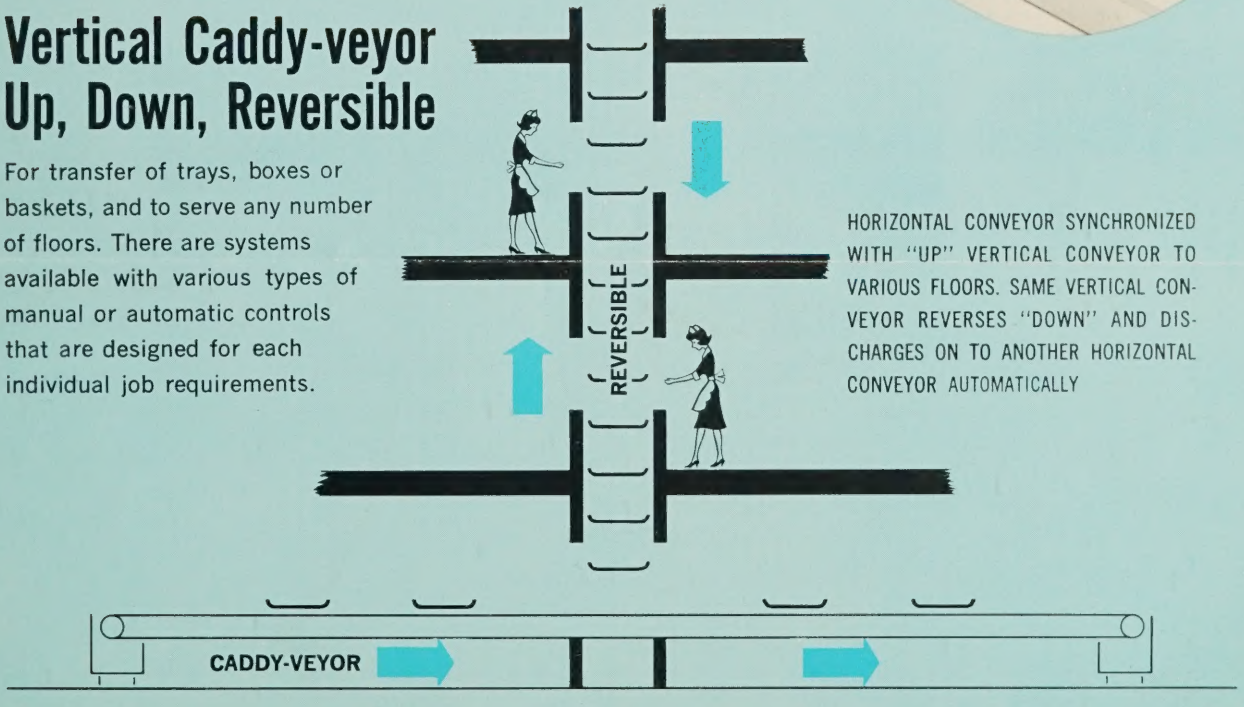
Our engineering department is always available to assist with design, layout, specifications, etc. Conveyor systems are planned to suit your own particular requirements.



model CVV

## Vertical Caddy-veyor Up, Down, Reversible

For transfer of trays, boxes or baskets, and to serve any number of floors. There are systems available with various types of manual or automatic controls that are designed for each individual job requirements.




HORIZONTAL CONVEYOR SYNCHRONIZED WITH "UP" VERTICAL CONVEYOR TO VARIOUS FLOORS. SAME VERTICAL CONVEYOR REVERSES "DOWN" AND DISCHARGES ON TO ANOTHER HORIZONTAL CONVEYOR AUTOMATICALLY

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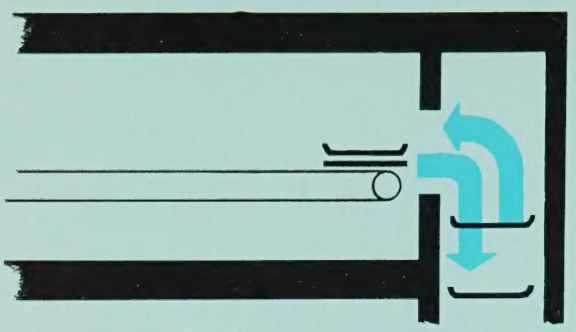
# Vertical Caddy-veyor Features...

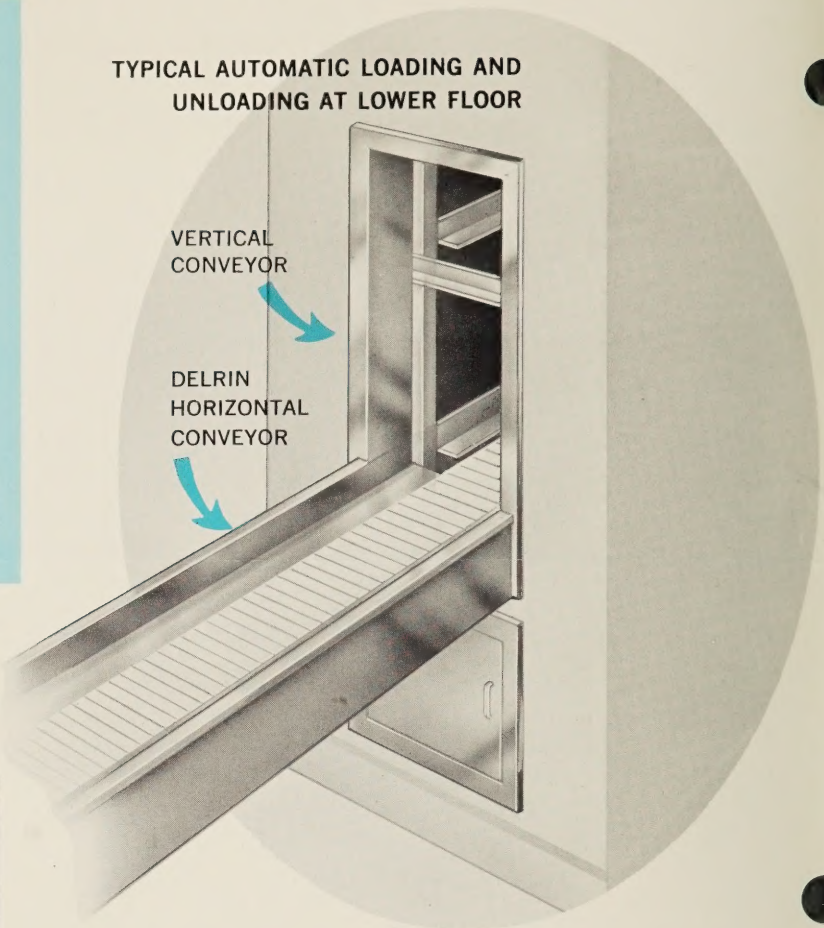


## Automatic Transfer Device

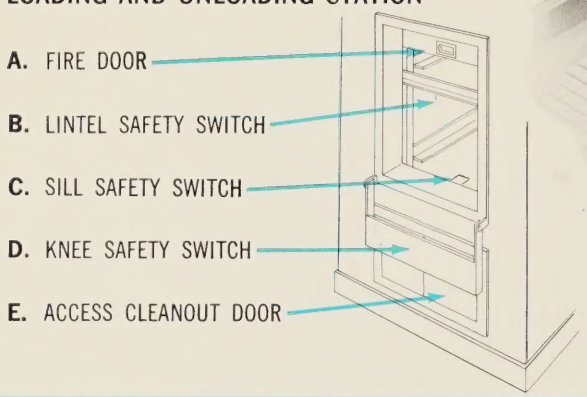
(For Motions . . . illustrated above)

Transfers trays, etc., from vertical to horizontal . . . or vice versa. CONSTANT MOTION AT MAXIMUM SPEED without slowdown during transfer. All conveyors remain in motion with fast, continuous tray movement.

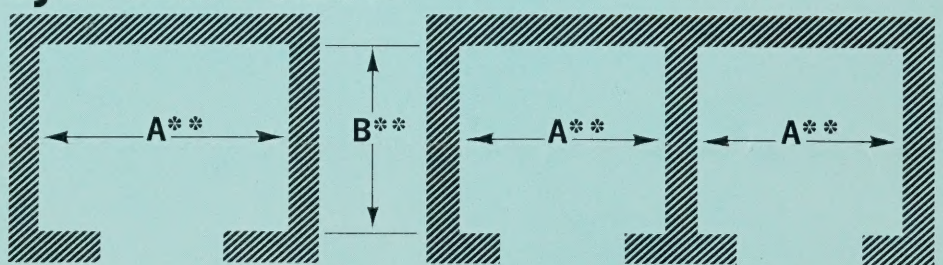
**TYPICAL AUTOMATIC LOADING AND UNLOADING AT LOWER FLOOR**




**VARIOUS TYPICAL DETAILS OF MANUAL LOADING AND UNLOADING STATION**




# Conveyor Shaft Sizes:




MOST HEALTH DEPARTMENTS REQUIRE INDIVIDUAL SHAFT FOR EACH CONVEYOR

**NOTES:**

1. Dimensions shown are for trays loaded long way, front to back.
2. Sills of hatchway openings are normally 30" above finished floor.
3. Standard service door openings are 36" high.

| SIZE OF TRAY | A | B |
|---|---|---|
| 14" x 18" | 4'-10" | 3'-2" |
| 15" x 20" | 4'-11" | 3'-4" |
| 16" x 22" | 5'-0" | 3'-6" |
| 16½" x 22½" | 5'-0" | 3'-6½" |
| *22¾" x 27¾" | 5'-10" | 4'-0" |

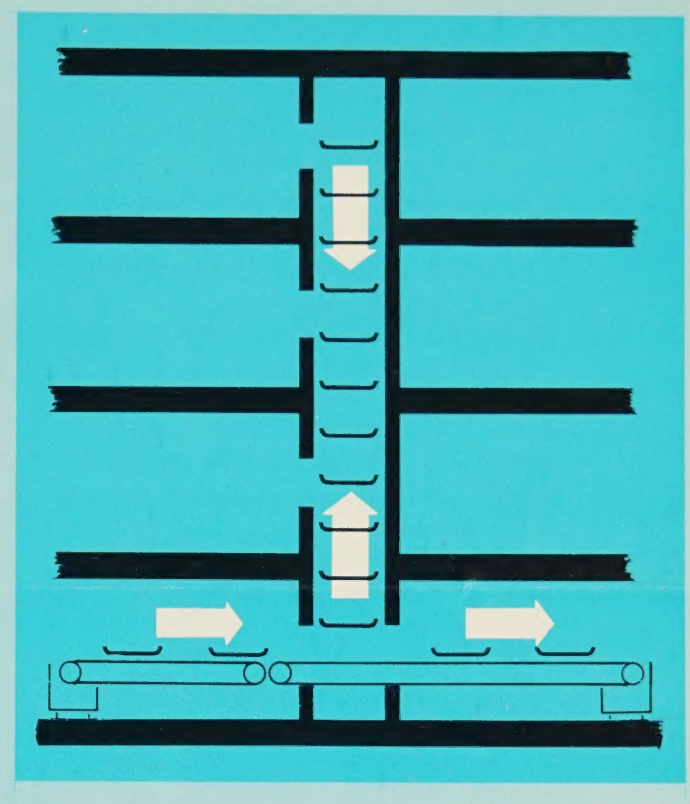
* BANQUET OVAL TRAY

Contact our Engineering Department for details of shaft opening.

**These shaft dimensions are minimum. If space allows, it is desirable to increase these dimensions by 12" to facilitate cleaning of shaft.

# Complete Automation

## Up, Down and onto Horizontal Conveyor



☐ **CENTRAL TRAY MAKE-UP HORIZONTAL CONVEYOR . . . SYNCHRONIZED INTO VERTICAL CONVEYOR, "UP" TO PATIENTS FLOORS . . .**
SOILED TRAYS RETURNED BY SEPARATE VERTICAL DOWN CONVEYOR TO HORIZONTAL CONVEYOR ROUTED TOWARD SCULLERY.

(Note: Separate UP conveyor for food trays, and DOWN conveyor for soiled dish return are recommended. However, it is suggested BOTH conveyors be built REVERSIBLE so if one should be out of use, service in both directions will not be interrupted.)

Two CVV Vertical Caddy-veyors manufactured by Caddy Corp. of America, Secaucus, N. J. one "UP," one "DOWN" to be of all welded heavy structural steel, entirely self supporting with all structural members finished in two coats of rust inhibiting paint. Drive mechanism to consist of heavy duty reduction gear brake motor to handle system load. Drive to have thermal overload and low voltage protection as well as automatic mechanical overload device (with push button reset) to stop entire system should overload occur. For service and maintenance a key operated reversing switch shall be located near the motor control. Adjustable take up shall be provided at the bottom of the conveyor.

Angle tray supports to be on 24" to 30" centers and of 10 ga. S.S., fastened to 4 hardened steel roller type chains of 8500 lb. ultimate strength per chain. Where Caddy-veyor passes through floor slab(s) it shall be securely fastened for additional rigidity. At each floor station the system shall be provided with full width S.S. knee switch. System shall have capacity of 8 to 10 trays per minute. Conveyors to be fully wired ready for final electrical connection to motor control by electrician. Conveyors designed to transport trays (racks or boxes) of_____(fill in dimensions). Both Vertical Conveyors to be built REVERSIBLE for both UP and DOWN service.

(at this point in the specifications indicate number of floors to be serviced)

At each floor station provide an automatic lintel switch and sill switch to stop conveyor if tray hasn't been pushed into proper position. An automatic override safety switch is to be located at top of system to stop conveyor should tray bypass final unloading station. At bottom unloading station a safety switch shall stop conveyor if a second tray reaches unloading position before first tray has been removed. Upon removal, conveyor automatically restarts. Central station is to be provided with one push button and two control lights for each floor while service floors are provided with control lights only. A master switch on the Central Floor sets the direction of the Caddy-veyor system, either "UP" or "DOWN." The control operator by push button selection regulates the flow of trays to a particular floor with signal light going "ON" at floor being served. Change over for service to another floor is accomplished by pushing "STOP" button and then the button of the new floor selected. Safety control stops conveyor should there be a delay in removing a tray from final discharge point. Caddy-veyor restarts automatically upon removal.

TWO HORIZONTAL CONVEYORS are to be provided, size as indicated on plan. One conveyor for Central Tray Make Up, Model TM-10-V, synchronized with the vertical conveyor system by means of the spacer belt and the second Conveyor Model D-10 synchronized with the Vertical System to accept soiled trays "DOWN" from patients floors to scullery.

The Tray Make Up Conveyor shall be provided with a variable speed motor drive to provide belt speeds from twelve feet to 36 feet per minute.

The Horizontal Conveyor system shall be built with 10" wide Delrin belt. The entire framework shall be of #12 ga. S.S. of all welded construction with all welds ground smooth. The conveyor belting shall be self-tracking and self-tensioning.

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# Complete Automation cont'd.

All bearings to be heavy duty type with permanently sealed lubrication. Conveyor beds to be of 14 gauge Stainless Steel all welded construction with channel type curbing on both long sides. Channels shall be 2" wide and 2" above bed. Between drive and tail ends units are to have 3" wide, 12 ga. welded S.S. channel supports on 5 ft. centers, each provided with 2" dia. non-marking plastic return idler with permanently lubricated bearings. Furnish push button "ON-OFF" switch, limit switch, magnetic motor starter with overload and low voltage protection. Complete system fully wired with all internal wiring fully interconnected. Drive mechanism to be fully enclosed in an all 18 ga. S.S. cabinet with access door. Balance of conveyor to be supported by 1⅝" O.D. S.S. pipe legs with welded S.S. cross and longitudinal rails, set on pear shaped adjustable S.S. feet. A rounded and pitched S.S. drain pan shall run full length of belt. Skirting to be removable, of 18 ga. S.S. to provide full access. All S.S. to be type 304 No. 4 finish.

Both Horizontal Belt conveyors shall be fully wired to vertical Caddy-veyor system and wired into main control panel. Vertical conveyor in DOWN position to be provided with self acting control to stop conveyor should a tray not clear the shaft. The next tray will actuate this control automatically upon removal of the first tray. In UP operation the vertical conveyor is automatically synchronized with the horizontal conveyors by control switches, assuring the proper placement of each tray on a set of angle lifts, without one contacting another.

Horizontal tray make up conveyor to be furnished with S.S. wireway with moisture proof electric plug in outlets for auxiliary equipment, quantity as indicated on plan. Wiring shall terminate in a power panel with each receptacle having its own disconnect fuse and shut off.

Each horizontal conveyor to be provided with model BW-3 belt washer. To be completely built in, and of 16 ga. S.S. All welded construction and located in the drive mechanism enclosure. Fan shaped sprays located top and bottom shall be positioned to wash all surfaces of the belt. Washers provided with drop door and S.S. removable perforated scrap baskets. Washer to be provided with fully connected water pressure gauge, water pressure reducing valve, mixing valve and shut off valve. Bottom of washer provided with 1½" IPS drain. (specify electric current characteristics)

## ☐ Optional Electric Eye Shut Down Control

The vertical conveyors shall each be provided with an electric eye shut down control which shall stop the conveyor if the vertical conveyor shaft is empty.

## ☐ Hinged Doors For Access To Mechanism

At the top floor, above the unloading opening, provide a set of two double wall 18 ga. hinged doors with 14 ga. angle frame for mounting into conveyor shaft. Size per plan. (continue selecting one)

☐ The doors and angle framework to be made of type 304 Stainless Steel.

☐ Doors and angle framework to be of galvanized steel, finished in two coats of grey flecktone enamel.

## ☐ Fire Doors

Where indicated on plan fire door(s) complete with buck shall be provided. Doors to be 36" high and of proper width, and shall have Underwriters Laboratory label.

## ☐ Buck With Sill

Where indicated on drawings, provide 12 ga. buck with integral sill, of all welded seamless construction with 2" flanges on both sides. (continue selecting one)

☐ Buck and sill to be of type 304 stainless steel.

☐ Buck and sill to be of galvanized steel.

# general specifications: STANDARD VERTICAL CADDY-VEYOR SYSTEMS

☐ Model CVV Vertical Caddy-veyor manufactured by Caddy Corp. of America, Secaucus, N. J. to be of all welded heavy structural steel, entirely self supporting with all structural members finished in two coats of rust inhibiting paint. Drive mechanism to consist of heavy duty reduction gear brake motor to handle system load. Drive to have thermal overload and low voltage protection as well as automatic mechanical overload device (with push button reset) to stop entire system should overload occur. For service and maintenance a key operated reversing switch shall be located near the motor control. Adjustable take up shall be provided at the bottom of the conveyor.

Angle tray supports to be on 24" to 30" centers and of 10 ga. S.S. fastened to 4 hardened steel roller type chains of 8500 lb. ultimate strength per chain. Where Caddy-veyor passes through floor slab(s) it shall be securely fastened for additional rigidity. At each floor station the system shall be provided with full width S.S. knee switch. System shall have capacity of 8 to 10 trays per minute. Conveyor to be fully wired, ready for final electrical connection to motor control by electrician. Conveyor designed to transport trays (racks or boxes) of_____(fill in dimensions).

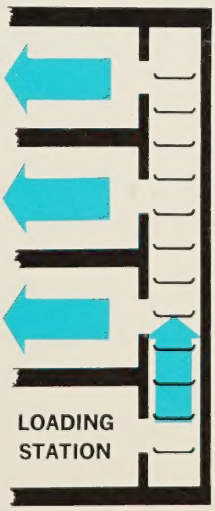
(at this point in the specifications indicate number of floors to be serviced and relative location of central station to the service floors. Then continue specifications selecting the one applicable paragraph either "UP" or "DOWN." If system is reversible bypass next paragraphs and resume at "REVERSIBLE" paragraph)

## Up only Conveyors

## Manual Loading & Unloading

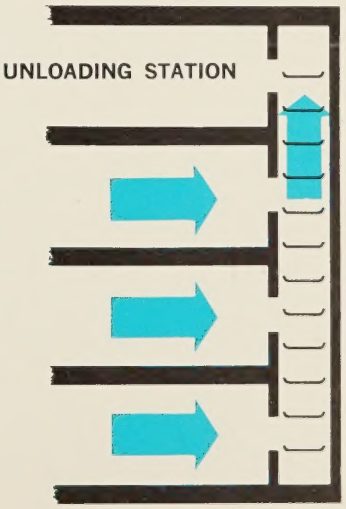
☐ **PUSH BUTTON CONTROL SELECTIVE SYSTEM FOR ONE WAY OPERATION FROM LOADING STATION UP TO DISCHARGE FLOORS.**

Conveyor at the Loading Station is to be provided with push button stations and signal lights, one set for each floor, and with "OFF" position button. In service, the selected floor button is pushed, and its signal light as well as the companion signal light on the receiving floor illuminates indicating that all loading and unloading is automatically set for that floor. To change service to another floor the "STOP" button is first pushed and then the button for the newly selected floor. Service continues automatically. Should a tray pass the designated sill, a safety switch stops the entire conveyor. Movement is automatically restarted upon removal of this tray. Provide a lintel switch at the loading station to stop conveyor if tray has not been fully pushed into proper riding position.




☐ **PUSH BUTTON CONTROL SYSTEM FOR ONE WAY OPERATION UP TO UNLOADING STATION.**

Unloading Station shall be provided with "start-stop" button. When Unloading Station pushes "start" button all floor signal lights go ON indicating system is in operation. An automatic lintel switch is to be provided at each floor to stop conveyor if a tray is not entirely pushed into proper riding position.

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# Down only Conveyors

## Manual Loading & Unloading

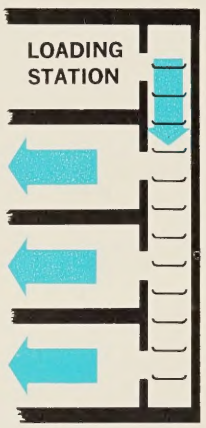
(CONTINUATION OF GENERAL SPECIFICATIONS)

☐ At Tray Loading floors a sill switch shall be provided to stop conveyor if tray has not been fully pushed into proper riding position. At bottom unloading station, a safety switch shall stop conveyor if a second tray reaches unloading position before first tray has been removed. Upon removal, conveyor automatically restarts.

(continue selecting one)

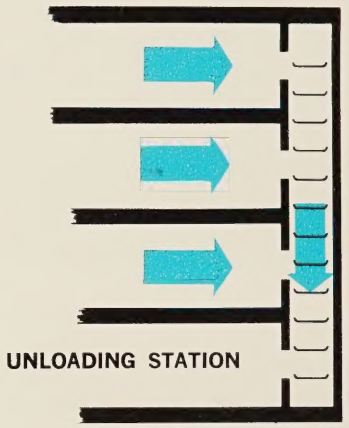
☐ **PUSH BUTTON CONTROL SELECTIVE SYSTEM FOR ONE WAY OPERATION FROM LOADING STATION "DOWN" TO DISCHARGE FLOORS.**

Conveyor on the loading floor is to be provided with push button stations and signal lights, one set for each floor, and with "OFF" position button. In service, the selected floor button is pushed, and its signal light as well as the companion signal light on the receiving floor illuminates, indicating that all unloading is automatically set for that floor. To change service to another floor the "STOP" button is first pushed and then the button for the newly selected floor. Service continues automatically. Should a tray pass the designated sill, a safety switch stops the entire conveyor. Movement is automatically restarted upon removal of this tray.




☐ **PUSH BUTTON CONTROL SYSTEM FOR ONE WAY OPERATION FROM VARIOUS FLOORS "DOWN" TO THE UNLOADING STATION.**

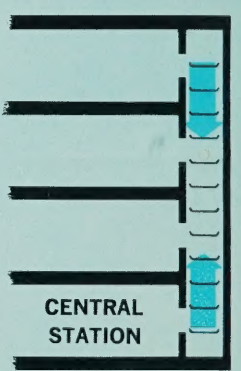
Unloading station shall be provided with "start-stop" button. When unloading station pushes "start" button all floor signal lights go "ON" indicating system is in operation.

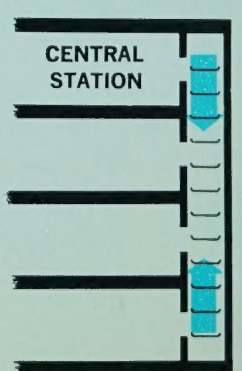



# Reversible System

## Manual Loading & Unloading
WITH PUSH BUTTON CONTROL

☐ At each floor station an automatic lintel switch and sill switch are to be provided to stop conveyor if tray has not been pushed into proper riding position. An automatic override safety switch is to be located at top of system to stop conveyor should tray bypass final unloading station. At bottom unloading station a safety switch shall stop conveyor if a second tray reaches unloading position before first tray has been removed. Upon removal, conveyor automatically restarts. Central Station is to be provided with one push button and two control lights for each floor while service floors are provided with control lights only. A master switch on the Central Floor sets the direction of the Caddy-veyor system, either "UP" or "DOWN." The control operator by push button selection regulates the flow of trays to a particular floor with signal light going "ON" at floor being served. Change over for service to another floor is accomplished by pushing "STOP" button and then the button of the new floor selected. To return the trays from service floors, Central Station operator reverses master switch which activates service floor signal lights indicating conveyor is set to deliver to Central Station only. Safety control stops conveyor should there be a delay in removing a tray from final discharge point. Caddy-veyor restarts automatically upon removal.



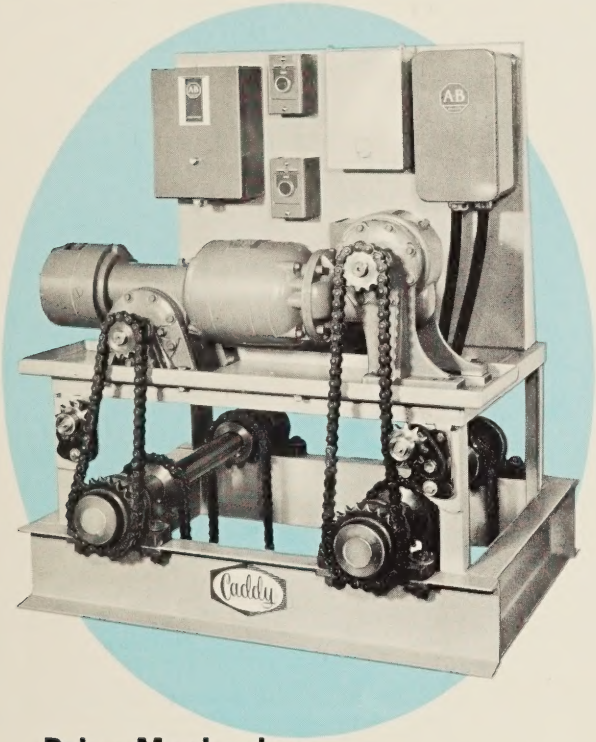
## ☐ Exterior Shaft Enclosure

The vertical conveyor frame shall be sheathed on the outside with 18 ga. floor to ceiling panels of double wall construction. The panels shall be filled with 1" thick glasswool insulation and shall be securely bolted to 12 ga. corner angle frames attached to floor and ceiling. Corners shall be covered with 3" x 3" — 12 ga. angles running from floor to ceiling. All as shown on plan.

(continue selecting one)

☐ Exterior housing to be made entirely of 304 stainless steel.

☐ Exterior housing to be made entirely of galvanized steel, finished in two coats of grey fleck-tone enamel.




**Drive Mechanism** consists of a heavy duty reduction gear motor ¾ to 2 H.P., depending on job requirement, and is provided with a low voltage cutout control, as well as overload control. Also furnished is a mechanical overload at the drive which operates independently of electrical overload and shuts off motor in case of accidental jam. All power transmission is by oversized chains for trouble free operation.

AT RIGHT: View of Vertical Conveyor built integral with Variflex VF-2 Horizontal Conveyor. Soiled tableware or waiters' trays are conveyed "UP" one floor to scullery.

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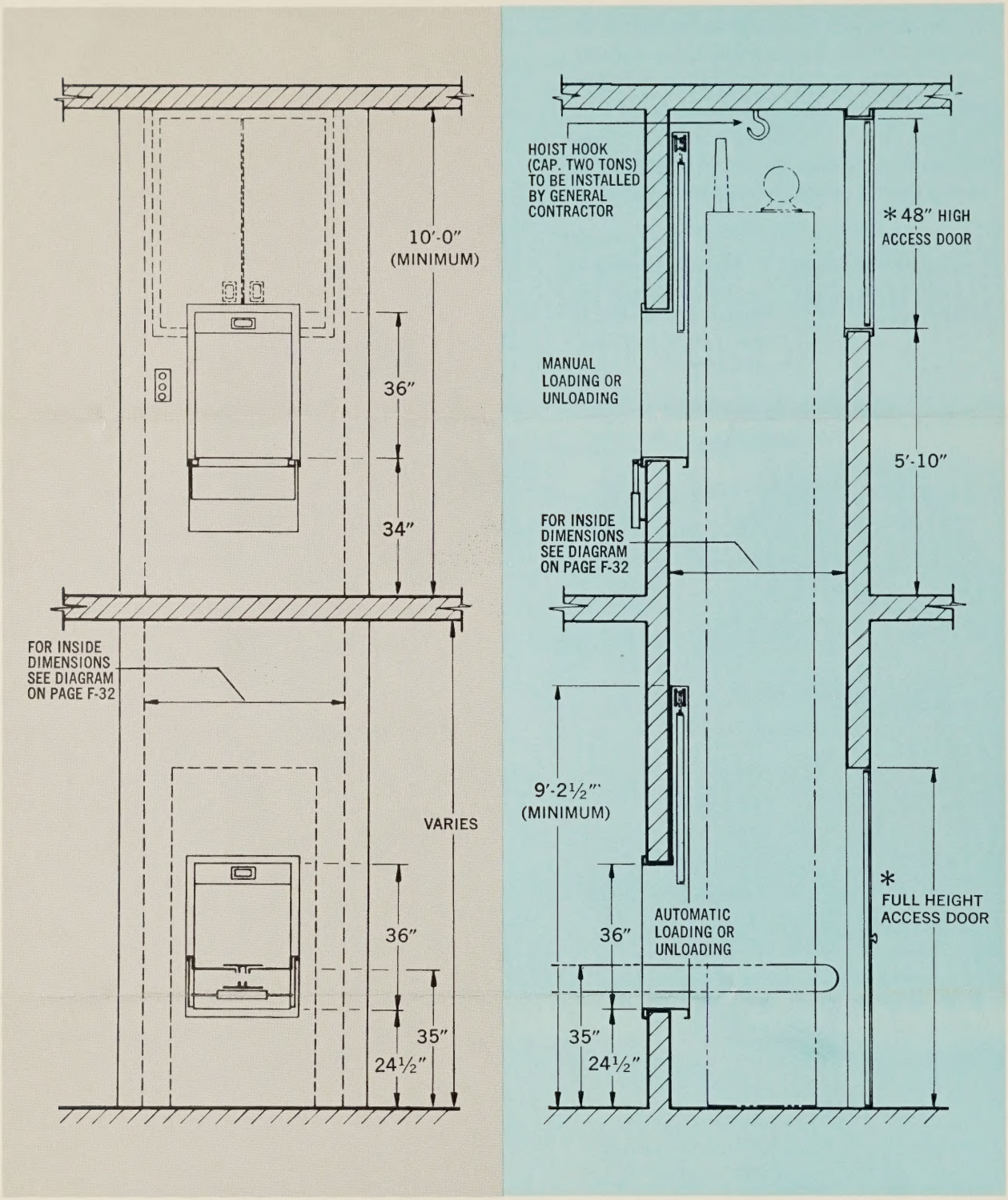


* Access Doors (shown in rear) may also be located at either side of Conveyor Shaft. Contact manufacturer if Access Doors must be located in Loading or Unloading side of Conveyor Shaft.

Above diagrams are for preliminary planning only. Contact manufacturer for final details.

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MANUFACTURERS OF DISH & TRAY HANDLING EQUIPMENT